

Abstract

A honeycomb substrate includes an inner body having an inner skin and an array of inner webs defining an array of inner cells within the inner skin. The honeycomb substrate further includes an outer body having an outer skin formed concentric with the inner skin and an array of outer webs defining an array of triangle cells between the inner skin and the outer skin. The triangle cells are oriented along a radial direction with respect to a center of the inner body. An extrusion assembly for forming the honeycomb substrate includes an inner cell forming die, an outer cell forming die, and a skin forming mask, all mounted coaxially. An outer skin slot formed between the outer cell forming die and the skin forming mask is in communication with feedholes in the inner cell forming die through an opening in the outer cell forming die.